AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) Distribution network for electromagnetic signals for use in an antenna arrangement in the microwave range, the distribution network comprising:

at least first and second waveguide branches comprised of respective grooves defined in a plate of conductive material, in which branches the electromagnetic signals propagate in different directions with respect to one another so that the signals in the first branch propagate in a first direction and signals in the second branch propagate in a second direction different from the first direction, [[and]]

wherein said first and second waveguide branches overlap one another at a point in the distribution network, said first and second waveguide branches each having at least one through-going aperture in the part of the branch which overlaps the other branch, said through-going apertures extending all the way through the plate of conducting material and each aperture being arranged essentially at a right angle with respect to a main direction of extent of the corresponding branch[[.]]; and

wherein the apertures in the branches serve as radiating elements of the antenna arrangement in which the distribution network is used.

2. (Previously presented) Distribution network according to Claim 1, in which the first and second waveguide branches in the distribution network which overlap one another are neighbouring branches.

3. (Previously presented) Distribution network according to claim 1, in which at least one aperture in the each of the first and second waveguide branches is included in a group of apertures which are arranged in an essentially straight line.

4. (Previously presented) Distribution network according to claim 3, in which a number of the apertures in the group are for the same polarization.

5. (Previously presented) Distribution network according to claim 4, in which the apertures in the group are intended for horizontal polarization.

6. (Previously presented) Distribution network according to claim 5, in which the apertures in the group are situated at the end of the respective branch in the distribution network.

7. (Previously presented) Distribution network according to claim 4, in which the apertures in the group are intended for vertical polarization.

8. (Previously presented) Distribution network according to claim 7, in which the apertures in the group are situated at a distance of ¾ λ_g from the end point of their respective branch, where λ_g is the wavelength of the electromagnetic signal in the waveguide.

9. (Previously presented) Distribution network according to claim 8, in which the apertures are constituted of apertures in a longitudinal wall of the waveguide.

10. (Previously presented) Distribution network according to claim 1, in which the apertures comprise slots.

11. (Previously presented) Distribution network according to claim 1, in which the waveguides comprise tracks in a plate of conductive material.

12. (Currently amended) Antenna arrangement comprising a distribution network for electromagnetic signals, the antenna arrangement comprising:

at least first and second waveguide branches comprised of respective grooves defined in a plate of conductive material, in which branches the electromagnetic signals propagate in different directions with respect to one another so that the signals in the first branch propagate in a first direction and signals in the second branch propagate in a second direction different from the first direction, [[and]]

wherein said first and second waveguide branches overlap one another at a point in the distribution network, said first and second waveguide branches each having at least one aperture in the part of the branch which overlaps the other branch, said apertures extending through the plate and each aperture being arranged essentially at a right angle with respect to a main direction of extent of the corresponding branch[[.]]; and

wherein apertures in the branches serve as radiating elements of the antenna arrangement.

13. (Currently amended) Antenna arrangement according to claim 12, in which the distribution network is ~~constructed in~~ comprised of two layers with an intermediate aperture layer.

14. (Previously presented) Antenna arrangement according to claim 13, in which the waveguides in one of the distribution networks comprises tracks in a plate of conductive material.

REMARKS

This is in response to the Office Action dated December 12, 2002. An RCE has been filed herewith. Claims 1-14 are pending.

The disclosure stands objected to in the first paragraph of the Office Action. This objection has been addressed and overcome in the manner suggested by the Examiner via the specification amendment set forth above. The objection to claim 13 has also been addressed above.

Applicant notes with appreciation the Examiner's indication that claims 8-9 contain allowable subject matter.

Claim 1 stands rejected under Section 102 as being allegedly anticipated by Ajioka. This Section 102 rejection is respectfully traversed for at least the following reasons.

Claim 1 requires "through-going apertures extending all the way through the plate of conducting material and each aperture being arranged essentially at a right angle with respect to a main direction of extent of the corresponding branch; and wherein the apertures in the branches serve as radiating elements of the antenna arrangement in which the distribution network is used." The cited art fails to disclose or suggest these aspects of claim 1.

Ajioka's alleged apertures 81, 83 do not serve as antenna radiating elements. Instead, Ajioka's alleged apertures 81, 83 merely serve to couple waveguide branches to each other (e.g., see Ajioka in Fig. 4; and pg. 15). In fact, Ajioka's alleged apertures 81,

83 cannot possibly function as antenna radiating elements since they are hidden inside the conducting plate. Thus, it can be seen that Ajioka is entirely unrelated to the invention of claim 1 in this respect.

Moreover, Ajioka's alleged apertures 81, 83 do not extend all the way through the alleged plate of conducting material as required by claim 1. Again, the reference is entirely unrelated to claim 1 for this additional reason.

Claim 1 cannot be anticipated or otherwise rendered unpatentable over Ajioka for at least the two (2) aforesaid reasons.

Claim 12 requires that "apertures in the branches serve as radiating elements of the antenna arrangement." Again, Ajioka's alleged apertures 81, 83 do not serve as antenna radiating elements. Instead, Ajioka's alleged apertures 81, 83 merely serve to couple waveguide branches to each other (e.g., see Ajioka in Fig. 4; and pg. 15). As explained above, Ajioka's alleged apertures 81, 83 cannot function as antenna radiating elements since they are hidden inside the conducting plate. Thus, it can be seen that Ajioka is entirely unrelated to the invention of claim 12 in this respect.

For at least the foregoing reasons, it is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance.

Respectfully submitted,

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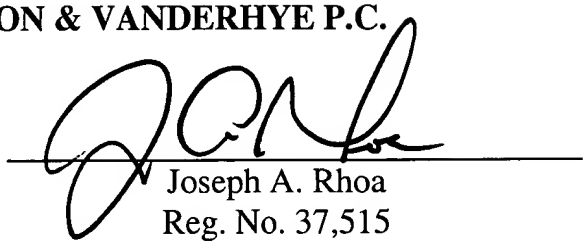
By: 
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